REMARKS

The above amendments and these remarks are responsive to the Office Action issued on June 18, 2004. By this response claims 1, 5, 11, 12, 16, 17, 23 and 25 are amended, and claims 27-53 are newly presented. The specification is amended to correct clerical errors. No new matter is added. Claims 1-53 are now active for examination.

The Office Action and Interview

The Office Action dated June 18, 2004 rejected claims 1-26 under 35 U.S.C. §102(e) as being anticipated by Razavi et al. (U.S. Patent No. 6,362,730). The Examiner is thanked for the curtsey for granting an interview on July 19, 2004, to discuss the Office Action and differences between the claims and Razavi. The Examiner acknowledged that the claims are distinguishable from Razavi, but suggested amending the claims to clarify relationships between various steps recited in the claims, and to describe automatic downloading of extension software and the function of the application software. The Examiner indicated that the amendments would place the claims in condition of allowance if no new reference is found.

By this Response, claims 1, 11, 12, 16 and 17 are amended to incorporate the Examiner's suggestions and the conclusion of the interview. Claims 23 and 25 are amended to specify additional features of a common platform and its specific use in an automotive service system, as discussed during the interview. The anticipation rejection of claims 1-26 based on Razavi is respectfully traversed in view of the claim amendments and remarks presented herein.

Claims 1-22 Are Patentable over Razavi

Claims 1-22 were rejected as being anticipated by Razavi. By this Response, independent claims 1, 11, 12, 16 and 17 are amended as suggested by the Examiner. It is respectfully submitted

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that the anticipation rejection based on Razavi is traversed because Razavi cannot support a prima facie case of anticipation.

Claim 1 relates to a common platform for interfacing between a host computer and various types of equipment sensors. The common platform includes a processor, upon execution of bootloader software, performs the steps of: "automatically downloading extension software into said memory; executing the downloaded extension software; under the control of the downloaded extension software, determining the type of said equipment sensor; responsive to a result of the determining step, downloading application software corresponding to the type of equipment sensor into said memory, wherein the application software is used for configuring the common platform for use with the equipment sensor; and executing said application software." Therefore, various pieces of software are downloaded into the memory and executed sequentially in order to determine the type of equipment sensor and to obtain appropriate application software that is used for configuring the common platform for use with the equipment sensor. Appropriate support for the amendment can be found in, for example, Figs. 2 and 3; and page 4, line 10 through page 11, line 8.

On the other hand, Razavi describes an in-car network system with Java-enabled devices connected to a compute platform 22 running Java virtual machine, such that the system can work with different devices using different operating systems. See Fig. 2 and col. 8, ln. 50 through col. 9, ln 21. The in-car network may download update software from an external network connection, such as LANs. See co. 13, ln. 46 through col. 14, ln. 8.

Although Razavi discusses generally downloading updated software from a remote server. Razavi fails to teach or suggest the specific steps for obtaining suitable application software as described in claim 1, such as "executing said bootloader software for performing the steps of: automatically downloading extension software into said memory; executing the downloaded

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extension software; under the control of the downloaded extension software, determining the type of said equipment sensor; responsive to a result of the determining step, downloading application software corresponding to the type of equipment sensor into said memory, wherein the application software is used for configuring the common platform for use with the equipment sensor; and executing said application software." Since Razavi fails to teach or suggest every limitation of claim 1, Razavi cannot support a prima facie case of anticipation. The anticipation rejection of claim 1 based on Razavi is untenable and should be withdrawn. Claims 2-4, 6-10 and 18, directly or indirectly, depend on claim 1 and incorporate every limitation thereof. Therefore, the anticipation rejection of claims 2-4, 6-10 and 18 is also untenable and should be withdrawn based on at least the same reasons for claim 1. Favorable reconsideration of claims 1-4, 6-10 and 18 is respectfully requested.

Claim 5 depends on claim 1 and incorporates every limitation thereof. By this response, claim 5 is amended to clarify that the common platform includes <u>configurable</u> power interface to select one of a plurality of power sources for application to the common platform. Appropriate support for the amendment can be found in, for example, Fig. 2; page 6, lines 21-23 and page 7, lines 13-20. This feature is not available in Razavi. Thus, the anticipation rejection of claim 5 is untenable and should be withdrawn based on the same reasons for claim 1 as well as on its own merits. Favorable reconsideration of claim 5 is respectfully requested.

Claim 11, as amended, describes a common platform for executing bootlaoder software stored in its memory to perform the steps of: "automatically downloading extension software into said memory; executing the downloaded extension software; under the control of the downloaded extension software, determining the type of said equipment sensor; under the control of the downloaded extension software, determining whether said application software stored in said

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memory matches the type of said equipment sensor; if said application software matches said equipment sensor, then executing said application software; if the application software does not match said equipment sensor, then downloading new application software corresponding to said equipment sensor into said memory, wherein the application software is used for configuring the common platform for use with the equipment sensor." Appropriate support for the amendment can be found in, for example, Figs. 2 and 3; and page 4, line 10 through page 11, line 8. Therefore, a common platform as described in claim 11 downloads and executes various pieces of software in order to determine the type of equipment sensor and to use appropriate application software. A specific comparison step is performed to determine whether application software stored in a memory of the common platform matches with the attached equipment sensor. If not, new application software is downloaded to the common platform.

As discussed earlier, Razavi merely describes a general step of downloading updated software from a remote computer. Razavi fails to specifically teach or disclose the detailed steps as described in claim 11, such as "executing said bootlaoder software to perform the steps of: automatically downloading extension software into said memory; executing the downloaded extension software; under the control of the downloaded extension software, determining the type of said equipment sensor; under the control of the downloaded extension software, determining whether said application software stored in said memory matches the type of said equipment sensor; if said application software matches said equipment sensor, then executing said application software; if the application software does not match said equipment sensor, then downloading new application software corresponding to said equipment sensor into said memory, wherein the application software is used for configuring the common platform for use with the equipment sensor." Since Razavi fails to teach or suggest every limitation of claim 11, Razavi cannot support a

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prima facie case of anticipation. The anticipation rejection of claim 11 based on Razavi is untenable and should be withdrawn. Claim 19 depends on claim 11 and incorporates every limitation thereof. Therefore, the anticipation rejection of claim 19 based on Razavi also is untenable and should be withdrawn based on at least the same reasons discussed relative to claim 19. Favorable reconsideration of claims 11 and 19 is respectfully requested.

Independent claims 16 and 17 include descriptions comparable to those of claim 11. Therefore, the anticipation rejection of claims 16 and 17 also is untenable and should be withdrawn based on the same reasons for claim 11. Claims 21 and 22 depend on claims 16 and 17, respectively, and incorporate every limitation thereof. Thus, claims 21 and 22 also are patentable over Razavi for at the same reasons for claims 21 and 22, based on their respective dependencies. Favorable reconsideration of claims 16, 17, 21 and 22 is respectfully requested.

Independent claim 12 is directed to a method for preparing a common platform for use with a host computer, and recites specific steps for obtaining suitable application software corresponding to an equipment senor attached to the common platform, such as "reading bootloader software stored in said common platform; executing the bootloader software; under the control of the bootloader software, automatically downloading extension software into said common platform; executing the downloaded extension software; under the control of the downloaded extension software, determining the type of equipment sensor connected to said common platform; responsive to a result of the determining step, downloading application software corresponding to the type of said equipment sensor to said common platform; and configuring said common platform to perform a predetermined function based on the downloaded application software." Although Razavi discusses a general goal to download updated software from a remote server, Razavi fails to teach or suggest the specific steps as described in claim 12. Since Razavi fails to teach every limitation of

claim 12, Razavi cannot support a prima facie case of anticipation. Claim 12 is patentable over Razavi. Claims 13-15 and 20 depend on claim 12 and incorporate every limitation thereof. Accordingly, the anticipation rejection of claims 13-15 and 20 based on Razavi is also untenable and should be withdrawn based on at least the same reasons as discussed relative to claim 12. Favorable reconsideration of claims 12-15 and 20 is respectfully requested.

Claims 23-26 Are Patentable over Razavi

Claims 23-26 were rejected as being anticipated by Razavi. The anticipation rejection is respectfully traversed because Razavi cannot support a prima facie case of anticipation.

By this Response, independent claim 23 is amended and describes a common platform configured to <u>detachably</u> couple to a host computer of <u>an automotive service system</u> capable of controlling more than one type of equipment sensors. The common platform comprises control interface means for communicating with an equipment sensor, wherein the equipment sensor is configured to detachably couple to the common platform and to collect parameters related to a vehicle. The common platform further includes processor means for executing bootloader software to determine the type of the equipment sensor, and responsive to a result of the determining step, downloads application software corresponding to the type of equipment sensor into said memory means. <u>The application software is used for configuring the common platform for using with the equipment sensor.</u> Appropriate support for the amendment can be found in, for example, page 5, lines 17-24; and page 6, lines 8-10.

In contrast, even though Razavi discusses attaching different devices to the in-car network, Razavi fails to teach that the in-car network includes a common platform configured to <u>detachably</u> couple to the host computer and to receive equipment sensors that are detachably couple thereto, as required by claim 23. Furthermore, Razavi merely discusses downloading updated software from a

remote computer. Razavi, however, does not disclose <u>downloading application software to a detachable common platform</u>, wherein the application software is used for configuring the common platform for use with the equipment sensor. Since Razavi fails to teach every limitation of claim 23, Razavi cannot support a prima facie case of anticipation. The anticipation rejection of claim 23 based on Razavi is untenable and should be withdrawn. Claim 24 depends on claim 23 and incorporates every limitation of claim 23. Thus, the anticipation rejection of claim 24 also is untenable and should be withdrawn based on at least the same reasons for claim 23. Favorable reconsideration of claims 23 and 24 is respectfully requested.

Independent claim 25, after the amendment, describes a common platform configured to <u>detachably</u> couple to a host computer of <u>an automotive service system</u> capable of controlling more than one type of equipment sensors. The common platform comprises control interface means for communicating with an equipment sensor, wherein the equipment sensor is configured to detachably couple to the common platform and to collect parameters related to a vehicle. The common platform further includes processor means for executing bootloader software to determine the type of the equipment sensor, and whether application software stored in the common platform matches the determined type of the equipment sensor. If the application software matches said determined type of equipment sensor, then execute said application software; and if the application software does not match the determined type of equipment sensor, then download new application software corresponding to the determined type of equipment sensor to the common platform. The application software is used for configuring the common platform for use with the equipment sensor. Appropriate support for the amendment can be found in, for example, page 5, lines 17-24; and page 6, lines 8-10.

As discussed relative to claim 23, even though Razavi describes attaching different devices to the in-car network, Razavi fails to teach that the in-car network includes a common platform configured to <u>detachably</u> couple to the host computer and to receive equipment sensors that are detachably couple thereto, as required by claim 23. Furthermore, Razavi does not disclose determining whether application software stored in the common platform matches the determined type of the equipment sensor, and the subsequent steps corresponding to a result of the determination. Razavi also fails to teach <u>downloading application software to a detachable common platform</u>, wherein the application software is used for configuring the common platform for use with the equipment sensor, as described in claim 25. Since Razavi fails to teach every limitation of claim 25, Razavi cannot support a prima facie case of anticipation. The anticipation rejection of claim 25 based on Razavi is untenable and should be withdrawn. Claim 26 depend on claim 25 and incorporates every limitation of claim 25. Thus, the anticipation rejection of claim 26 also is untenable and should be withdrawn based on at least the same reasons for claim 25. Favorable reconsideration of claims 25 and 26 is respectfully requested.

New Claims 27-53 Are Patentable

By this Response claims 27-53 are newly presented. Claims 27-40 depend on claims 1, 11, 12, 16, 17, 23 and 25, respectively, and further describe that the downloaded application software is used to program a programmable interface between the common platform and sensors. Appropriate support for the amendment can be found in, for example, page 8, line 25 through page 9, line 5 of the written specification.

As discussed earlier, claims 1, 11, 12, 16, 17, 23 and 25 are patentable over Razavi. Therefore, claims 27-40 also are patentable over Razavi based on their respective dependencies on claims 1, 11, 12, 16, 17, 23 and 25. Furthermore, Razavi and other references of record do not teach

or suggest a common platform that determines the type of an attached sensor and downloads corresponding application software to program an interface coupling the sensor, as described in claims 27-40. Therefore, claims 27-40 are patentable over the references of record. Favorable consideration of claims 27-40 is respectfully requested.

New independent claim 41 and its dependent claims 42-46 pertain to a common platform for use in an automotive service system external to a vehicle, and performing steps comparable to those described in claim 1. Appropriate support for the amendment can be found in, for example, Figs. 2 and 3; and page 4, line 10 through page 11, line 8 of the application. As discussed earlier, claim 1 is patentable over the cited references. Thus, claim 41 as well as its dependent claims 42-46 also are patentable for at least the same reasons for claim 1.

New claim 47 describes a common platform for use in an automotive service system that (1) determines the type of an attached sensor and (2) downloads corresponding application software to program an interface receiving the sensor based on the application software. Appropriate support for the amendment can be found in, for example, Figs. 2 and 3; page 8, line 25 through page 9, line 5; and page 4, line 10 through page 11, line 8 of the specification. New claim 51 includes descriptions comparable to those of claim 47, and further specifies that the common platform and sensors are detachably attached to the automotive service system and the common platform, respectively. The references of record, singularly or combined, fail to teach or suggest these features. Therefore, claim 47 is patentable.

New claim 48 and its dependent claims 49 and 50 relate to an automotive service system including a common platform as described in claim 1. New claims 52 and 53 are means-plus-function claims corresponding to claims 1 and 11. Appropriate support for the amendment can be found in, for example, Figs. 2 and 3; and page 4, line 10 through page 11, line 8 of the application.

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As discussed earlier, claim 1 is patentable over the cited references. Thus, claim 48-51 also are patentable for at least the same reasons for claim 1.

Conclusion

For the reasons given above, Applicants believe that this application is conditioned for allowance and Applicants request that the Examiner give the application favorable consideration and permit it to issue as a patent. However, if the Examiner believes that the application can be put in even better condition for allowance, the examiner is invited to contact Applicants' representatives listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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